

(*M. Trujillo*), Rio Papagaio in Guerrero (*H. H. Smith*) ; GUATEMALA, San Gerónimo, San Isidro (*Champion*) ; COSTA RICA, Candelaria Mts. (*Underwood*).—GUIANA (*Whitely*).

A very dull-coloured species, varying considerably in size, and in the distinctness of the lines crossing the primaries—in some specimens they are almost obliterated, and in others very distinct. We figure a male from the Rio Papagaio. The specimens collected by Mr. Whitely in British Guiana do not differ from those from our region.

3. *Stemmatophora (?) albopunctalis*, sp. n. (Tab. LX. fig. 10, ♀.)

Female. Primaries and secondaries dark glossy brown, with the fringe of the same colour; the primaries crossed about the middle by a row of three white spots—the first on the costal margin, the second at the end of the cell, and the third on the inner margin,—and with a small round white dot in the middle of the cell; the underside paler than above, and without the white spots on the primaries: head, antennæ, thorax, abdomen, and legs dark brown. Expanse 1 inch.

Hab. GUATEMALA, Sabo, Panima, and San Gerónimo in Vera Paz (*Champion*).

Three females.

PYRALIS.

Pyralis, Linnæus, Syst. Nat. 10th edit. i. p. 533 (1758); Walker, Cat. xvii. p. 260; Meyrick, Trans. Ent. Soc. Lond. 1890, p. 475.

Orthopygia, Ragonot, Ann. Soc. Ent. Fr. 1891, p. 29.

1. *Pyralis glaucinalis*.

Phalena Pyralis glaucinalis, Linn. Syst. Nat. 10th edit. i. p. 533¹; 12th edit. i. 2, p. 881²; Faun. Suec. p. 351 (1761)³; Clerck, Icon. Ins. t. 3. fig. 4⁴; Walk. Cat. xvii. p. 263⁵.

Orthopygia glaucinalis, Ragon. Ann. Soc. Ent. Fr. 1891, p. 32⁶.

Hab. MEXICO, Jalapa (*M. Trujillo*), Amula in Guerrero 6000 feet (*H. H. Smith*).—EUROPE^{1–6}; JAPAN⁶.

2. *Pyralis datames*, sp. n. (Tab. LX. fig. 11.)

Primaries very similar to those of *P. glaucinalis*, but with the yellow lines fainter and not widened-out on the costal margin as in that species; secondaries white, without lines: head, thorax, and abdomen pale brown, the antennæ brown. Expanse 1½ inch.

Hab. MEXICO, Omilteme and Amula in Guerrero 6000 to 8000 feet (*H. H. Smith*).

This species may be at once distinguished from *P. glaucinalis* by the white secondaries.

3. *Pyralis decetialis*, sp. n. (Tab. LX. fig. 12.)

Primaries uniformly glossy pinkish brown; secondaries pale silky grey, the outer margin and fringe rather darker; the underside very much as above: head, thorax, and abdomen pinkish-brown. Expanse 1½ inch.

Hab. MEXICO, Omilteme in Guerrero 8000 feet (*H. H. Smith*).

One specimen, apparently a female.

ASOPIA.

Asopia, Treitschke, Schmett. Europ. vii. p. 146 (1829); Lederer, Wien. ent. Monats. vii. p. 342.

1. *Asopia nostralis*.

Pyralis nostralis, Guen. Sp. gén. des Lép. vii. p. 122¹; Walk. Cat. xvii. p. 266².

Asopia nostralis, Leder. Wien. ent. Monats. vii. p. 343, t. 7. fig. 5³.

Orthopygia nostralis, Ragon. Ann. Soc. Ent. Fr. 1891, pp. 32, 629⁴.

Asopia graafialis, Snell. Tijdschr. voor Ent. xviii. p. 189, t. 11. fig. 1⁵.

Hab. MEXICO, Presidio (*Forrer*), Amula in Guerrero 6000 feet (*H. H. Smith*); GUATEMALA, Panima and Purula in Vera Paz, El Tumbador (*Champion*); PANAMA, Chiriqui (*Ribbe, in mus. Staudinger*), Volcan de Chiriqui 2000 to 3000 feet (*Champion*). —COLOMBIA^{4 5}; VENEZUELA^{2 3}; BRAZIL^{1 2 3}.

This insect varies considerably in size and colour, and in the distinctness of the markings. *A. graafialis*, Snell., is, I believe, nothing more than a highly-coloured form of the same species, several of our specimens closely resembling it.

HYPERPARACHMA.

Hyperparachma, Warren, Ann. & Mag. Nat. Hist. (6) viii. p. 61 (1891).

Mr. Warren gives *Pyralis bursarialis*, Walker, from Honduras, as the type of this genus, and he also refers a Brazilian species to it. I have not seen a specimen of either of them.

1. *Hyperparachma bursarialis*.

Pyralis (?) bursarialis, Walk. Cat. xxxiv. p. 1231¹.

Hyperparachma bursarialis, Warr. Ann. & Mag. Nat. Hist. (6) viii. p. 61².

Hab. HONDURAS, Limas^{1 2}.

CHALCOELA.

Chalcoela, Zeller, Verh. zool.-bot. Ges. Wien, xxii. p. 528 (1872).

Zeller founded this genus upon a single species from Texas.

1. *Chalcoela aurifera*.

Chalcoela aurifera, Zeller, Verh. zool.-bot. Ges. Wien, xxii. p. 529, t. 2. figg. 12 a, b¹; Grote, Canad. Ent. x. p. 29².

Hab. NORTH AMERICA, Colorado, Texas^{1 2}, Florida.—GUATEMALA, San Gerónimo (*Champion*).

One specimen, similar to others from North America in my own collection.

2. *Chalcoela principalis*.

Cataclysta principalis, Walk. Cat. xxxiv. p. 1333¹.

Cataclysta robinsonii, Grote, Canad. Ent. iii. p. 181².

Chalcoela robinsonii, Grote, Canad. Ent. x. p. 29³.

Cataclysma egressalis, Walk. Cat. xxxiv. p. 1335⁴.

Hab. NORTH AMERICA^{1 2 3}. — MEXICO, Northern Sonora (*Morrison*). — ANTILLES, Jamaica^{1 4}, Dominica.

One worn specimen, showing that this species just enters our limits.

CACOGRAPHIS.

Cacographis, Lederer, Wien. ent. Monats. vii. p. 360 (1863).

1. *Cacographis osteolalis*.

Cacographis osteolalis, Leder. Wien. ent. Monats. vii. p. 360, t. 8. fig. 1¹; Walk. Cat. xxxiv. p. 1225²; Feld. Reise der Nov., Lep. t. 120. fig. 14³.

Hab. MEXICO, Teapa in Tabasco (*H. H. Smith*); PANAMA, Chiriqui (*Arcé, in mus. D.*; *Trötsch, in mus Staudinger*), Volcan de Chiriqui 2000 to 3000 feet (*Champion*). — COLOMBIA, Bogota³; VENEZUELA^{1 2}.

The Panama specimens are much darker than those from Mexico. Felder's figure is taken from a small example.

SUFETULA.

Sufetula, Walker, Cat. xix. p. 946 (1859).

Walker included in this genus a single species from Borneo; four others from Central or South America are now somewhat doubtfully referred to it.

1. *Sufetula diminutalis*.

Isopteryx (?) diminutalis, Walk. Cat. xxxiv. p. 1315¹.

Hab. HONDURAS, Limas¹.

The type in the National Museum is in very bad condition.

2. *Sufetula dentata*, sp. n. (Tab. LX. fig. 13.)

Male. Primaries brownish-fawn-colour, crossed by two fine waved cream-coloured lines—the first near the base, the second beyond the cell,—the fringe alternately light and dark fawn-colour; secondaries pale cream-colour, the marginal line brown, the fringe cream-colour: head, antennæ, and thorax brownish-fawn-colour, the abdomen greyish; legs white, banded with brown. Expanse 1 inch.

Hab. GUATEMALA, Panima in Vera Paz (*Champion*).

3. *Sufetula rusina*, sp. n. (Tab. LX. fig. 14.)

Primaries fawn-colour, with two semihyaline white spots beyond the middle, the spots edged with black, and preceded and followed by a small white streak, the fringe black, white at the anal angle; secondaries hyaline-white, the outer margin broadly bordered with fawn-colour: head, antennæ, thorax, and abdomen fawn-colour. Expanse 1½ inch.

Hab. MEXICO, Las Vigas (*coll. Schaus*).

The specimen figured I believe to be a female, unique in Mr. Schaus's collection.

4. *Sufetula melliculalis.*

Sparagmia (?) melliculalis, Leder. Wien. ent. Monats. vii. pp. 414, 480, t. 15. fig. 6¹.

Hab. MEXICO, Jalapa (*M. Trujillo*) ; GUATEMALA, Senahu in Vera Paz, Cerro Zunil, Las Mercedes (*Champion*) ; COSTA RICA, Candelaria Mts. (*Underwood*), Volcan de Irazu 6000 to 7000 feet (*Rogers*).—VENEZUELA¹.

A few specimens only, varying greatly in size and in the distinctness of the dark lines crossing the primaries.

PYRAUSTA.

Pyrausta, Schrank, Fauna Boica, ii. 2, p. 163 (1802) ; Meyrick, Trans. Ent. Soc. Lond. 1890, p. 449.

1. *Pyrausta insequalis.*

Herbula subsequalis, Guen. Sp. gén. des Lép. viii. p. 177 (nec Herr.-Schäff)¹ ; Walk. Cat. xvii. p. 323².

Herbula insequalis, Guen. Sp. gén. des Lép. viii. p. 447, Atlas, Delt. et Pyral. t. 8. fig. 3³.

Botys insequalis, Leder. Wien. ent. Monats. vii. p. 368⁴.

Isopteryx (?) madetesalis, Walk. Cat. xix. p. 946⁵.

Herbula repletalis, Walk. Cat. xxxiv. p. 1285⁶.

Herbula (?) efficitalis, Walk. loc. cit. p. 1287⁷.

Hab. NORTH AMERICA^{1-4 8}.—MEXICO, Milpas in Durango 5900 feet (*Forrer*), Jalapa (*M. Trujillo*) ; GUATEMALA, Totonicapam 8500 to 10,500 feet, Dueñas, San Gerónimo (*Champion*) ; COSTA RICA, Volcan de Irazu 6000 feet (*Rogers*).

A common and widely distributed species in Central America. No locality is given by Walker^{5 7} for *I. madetesalis* and *H. efficitalis*.

2. *Pyrausta borealis.*

Pyrausta borealis, Pack. Proc. Bost. Soc. Nat. Hist. xi. p. 53¹.

Botis (Pyrausta) matronalis, Grote, Bull. Buff. Soc. N. Sc. ii. p. 231².

Hab. NORTH AMERICA, Labrador¹, Canada².—MEXICO, Ciudad in Durango 8100 feet (*Forrer*), Jalapa and Santa Cruz in Vera Cruz (*M. Trujillo*) ; GUATEMALA, San Gerónimo, Calderas, Totonicapam 8500 to 10,500 feet (*Champion*) ; COSTA RICA, Volcan de Irazu 6000 to 7000 feet (*Rogers*).

We have received a long series of this species from the Los Altos region of Guatemala, these specimens showing scarcely any variation. The single example from Costa Rica is darker than any of the others before me.

3. *Pyrausta cyralis*, sp. n. (Tab. LX. fig. 15, ♂.)

Male. Primaries yellow, shaded with brownish-yellow dots, the fringe greyish-yellow ; secondaries yellowish-white, with a dusky submarginal line extending from the apex to the anal angle, the fringe greyish-

white: head, antennæ, tegulæ, and thorax yellow, the abdomen and legs pale yellowish-white.—*Female*. Very similar to the male. Expanse 1 inch.

Hab. NORTH AMERICA, Arizona.—MEXICO, Northern Sonora (*Morrison*).

4. **Pyrausta decetialis**, sp. n. (Tab. LX. fig. 16, ♂.)

Male. Primaries yellowish-brown, crossed from the costal to the inner margin by two rows of minute black dots, the marginal line black, the fringe yellow; secondaries semihyaline-blackish-brown, the fringe and the anal angle yellowish: head, the thorax above, and the abdomen blackish-brown, the anus yellow; the underside of the thorax and the legs whitish-yellow.—*Female*. Similar to the male, but slightly darker. Expanse 1 inch.

Hab. COSTA RICA, Volcan de Irazu 6000 feet (*Rogers*); PANAMA, Volcan de Chiriqui 3000 feet (*Champion*).

Two specimens.

CALAMOCHROUS.

Calamochrous, Lederer, Wien. ent. Monats. vii. p. 386 (1863) (part.).

1. **Calamochrous chilonalis**.

Calamochrous chilonalis, Leder. Wien. ent. Monats. vii. p. 387, t. 12. fig. 10¹.

Calamochrous chilonellus, Leder. loc. cit. p. 477².

Hab. COSTA RICA, Volcan de Irazu 6000 feet (*Rogers*).—VENEZUELA^{1 2}.

A considerable number of specimens of what I believe to be this species were captured by Rogers in Costa Rica. They are very similar to Lederer's figure; some of them, however, have the wings much darker.

PHLYCTÆNIA.

Phlyctænia, Hübner, Verz. bek. Schmett. p. 359 (1816); Meyrick, Trans. Ent. Soc. Lond. 1890, p. 446.

1. **Phlyctænia praxitalis**, sp. n. (Tab. LX. fig. 17.)

Male. Primaries pale greyish-brown, with a small square cream-coloured spot at the end of the cell and a large similarly coloured spot near the apex extending almost to the anal angle, the fringe greyish-brown; secondaries greyish-hyaline, edged with greyish-brown from the apex to the anal angle; the primaries much lighter beneath: head, thorax, and abdomen greyish-brown. Expanse 1 inch.

Hab. MEXICO, Jalapa (*M. Trujillo*), Rinconada and Coatepec in Vera Cruz (*coll. Schaus*); GUATEMALA (*Salvin, in mus. D.*); COSTA RICA, Volcan de Irazu 6000 feet (*Rogers*).

We figure a specimen from Jalapa. The example from Costa Rica is much darker.

2. **Phlyctænia (?) prusalis**, sp. n. (Tab. LX. fig. 18.)

Primaries pale brown, crossed from the costal to the inner margin by two fine curved darker brown lines, which are edged with white on the costal margin—the first line near the base, the second beyond the cell,—and with a round white spot at the end of the cell, the fringe pale brown; secondaries pale

brownish-white, darker at the apex and round the outer margin, a faint narrow brown submarginal line extending from the costal margin above the apex to a small black dot near the anal angle; the underside paler than above: head, thorax, and abdomen brown.—*Female*. Very similar to the male. Expanse $\frac{3}{4}$ inch.

Hab. MEXICO, Amula in Guerrero 6000 feet (*H. H. Smith*).

One male and two females.

SYLLYTHRIA.

Syllythria, Hübner, Verz. bek. Schmett. p. 349 (1816).

Hæmatia, Hübner, loc. cit.

Rhodaria, Guenée, Sp. gén. des Lép. viii. p. 168.

The species of this genus are very widely distributed. Ten are known to me from within our limits, five of which are described as new.

1. *Syllythria tyralis*.

Rhodaria tyralis, Guen. Sp. gén. des Lép. viii. p. 169¹; Walk. Cat. xvii. p. 316².

Botys tyralis, Leder. Wien. ent. Monats. vii. p. 367³.

Pyrausta erosnealis, Walk. Cat. xvii. p. 311⁴.

Botys diffissa, Grote & Robins. Trans. Am. Ent. Soc. i. p. 19, t. 2. fig. 16⁵.

Botis bellulalis, Hulst, Trans. Am. Ent. Soc. xiii. p. 149⁶.

Hab. NORTH AMERICA³, United States⁴, Louisiana⁵, Texas⁶.—MEXICO, Cuernavaca in Morelos, Amula in Guerrero 8000 feet (*H. H. Smith*), Temax in North Yucatan (*Gaumer*).—CUBA^{1 2 3 5}; BRAZIL³.

Three specimens.

2. *Syllythria rosa*, sp. n. (Tab. LX. fig. 19.)

Primaries rose-pink; secondaries pale fawn-colour, darker near the apex, shaded with rose-pink on the outer margin near the anal angle: head and antennæ fawn-colour; the thorax and abdomen fawn-colour above, white beneath, the tegulæ pink; the legs white. Expanse $\frac{6}{10}$ inch.

Hab. MEXICO, Presidio de Mazatlan (*Forrer*), Atoyac in Vera Cruz (*Schumann*), Teapa in Tabasco (*H. H. Smith*).

Allied to *S. tyralis* (Guen.), but without the yellow markings on the primaries. We figure a specimen from Presidio.

3. *Syllythria idessa*, sp. n. (Tab. LX. fig. 20.)

Primaries dark pink, crossed from the costal to the inner margin by two rather wide bright yellow bands—the first near the base, the second beyond the middle,—and with a round bright yellow dot at the end of cell; secondaries dark pink, shaded with yellow: head, antennæ, collar, and legs pale brown, the thorax and abdomen dark pink, the anus yellow. Expanse $\frac{1}{2}$ inch.

Hab. GUATEMALA, San Gerónimo (*Champion*).

One specimen only of this very distinct species has been received.

4. Syllythria (?) conradti, sp. n. (Tab. LX. fig. 21.)

Primaries pale yellowish-green, the apex and outer margin edged with brown, the fringe pale yellow; secondaries pale greyish-brown, the marginal line dark brown, the fringe reddish-brown: head, antennæ, thorax, and abdomen yellowish-green, the legs greyish-brown. Expanse $\frac{3}{4}$ inch.

Hab. GUATEMALA (Conradt, in mus. Staudinger).

One specimen.

5. Syllythria salvia, sp. n. (Tab. LX. fig. 22.)

Primaries pinkish-red, crossed from the costal to the inner margin by two fine waved yellow lines—the first close to the base, the second submarginal,—the marginal line yellow, the fringe reddish-brown; secondaries deep orange-red, the fringe brown at the apex and red on the outer and inner margins: head and thorax reddish-brown, the antennæ and legs brown (abdomen wanting). Expanse $\frac{1}{2}$ inch.

Hab. MEXICO, Tierra Colorada in Guerrero 2000 feet (H. H. Smith).

One specimen.

6. Syllythria panopealis.

Rhodaria panopealis, Walk. Cat. xvii. p. 318¹.

Botys panopealis, Leder. Wien. ent. Monats. vii. p. 367².

Botys (?) caecilialis, Walk. Cat. xviii. p. 581³.

Rhodaria ocellusalis, Walk. Cat. xix. p. 923⁴.

Rhodaria catenalis, Walk. Cat. xxxiv. p. 1282⁵.

Rhodaria juncturalis, Walk. Cat. xxxiv. p. 1283⁶.

Hab. GUATEMALA, Zapote (*Champion*); *PANAMA*, Volcan de Chiriqui 2000 to 3000 feet (*Champion*).—*AMAZONS*; *BRAZIL*²; *ANTILLES*, San Domingo³ 5.—*CHINA*¹; *S. INDIA*⁶; *W. AFRICA*, Sierra Leone⁴.

We have received a few specimens of this widely distributed species from Guatemala and the State of Panama; these are very similar to others from India and West Africa in my own collection.

7. Syllythria rhealis, sp. n. (Tab. LX. fig. 23.)

Female. Primaries dark reddish-brown, paler near the outer margin, with a large U-shaped cream-coloured mark about the middle of the costal margin and a wide yellow streak near the apex, the outer margin and fringe yellow, the base of the wing and several small spots on the inner margin yellow, a fine yellow waved submarginal line extending from near the apex almost to the anal angle; secondaries reddish-brown, yellowish at the base, and crossed beyond the middle by a narrow waved yellow line, the fringe yellow: head, collar, tegulæ, and thorax yellow, the abdomen reddish-brown, the antennæ brown. Expanse $\frac{3}{4}$ inch.

Hab. GUATEMALA, San Isidro 1600 feet (*Champion*).

One specimen.

8. Syllythria exuvialis.

Rhodaria exuvialis, Guen. Sp. gén. des Lép. viii. p. 172¹; Walk. Cat. xvii. p. 317².

Botys exuvialis, Leder. Wien. ent. Monats. vii. p. 368³.

Botys eratalis, Walk. Cat. xviii. p. 578⁴.

Scopula ordinatalis, Walk. Cat. xxxiv. p. 1465⁵.

Hab. MEXICO, Presidio (Forrer), Jalapa (*M. Trujillo*), Tierra Colorado in Guerrero, Cuernavaca in Morelos, Vera Cruz, Teapa (*H. H. Smith*) ; GUATEMALA, in the city (*Rodriguez*), Cahabon, San Juan, and San Gerónimo in Vera Paz, Dueñas, Zapote, San Isidro (*Champion*) ; HONDURAS⁵ ; COSTA RICA, Volcan de Irazu 6000 to 7000 feet, Rio Sucio (*Rogers*), Candelaria Mts. (*Underwood*) ; PANAMA, Chiriqui (*Ribbe, in mus. Staudinger*), Volcan de Chiriqui 2000 to 3000 feet (*Champion*).—COLOMBIA, Bogota ; GUIANA, Cayenne^{1 2 3} ; JAMAICA⁴.

A very common and widely distributed insect in Tropical America, varying greatly in size and colour. *S. exuvialis* is closely allied to *S. phœnicealis*, Hübn., from Southeast Brazil ; in fact, I think it will most likely prove to be a light form of that species.

9. *Syllythria phœnicealis*.

Hæmatia phœnicealis, Hübn. Zutr. Samml. exot. Schmett. i. p. 22, figg. 115, 116¹.

Rhodaria phœnicealis, Guen. Sp. gén. des Lép. viii. p. 173² ; Walk. Cat. xvii. p. 315³.

Hab. NORTH AMERICA², Florida^{1 3}. — MEXICO, Jalapa (*M. Trujillo*) ; COSTA RICA, Volcan de Irazu 6000 feet (*Rogers*).—AMAZONS ; BRAZIL^{2 3}.

We have received a few specimens of this species from our region ; these differ from Hübner's figure in having the markings a little less distinct.

10 *Syllythria insignitalis*.

Rhodaria insignitalis, Guen. Sp. gén. des Lép. viii. p. 173¹ ; Walk. Cat. xvii. p. 318².

Botys insignitalis, Leder. Wien. ent. Monats. vii. p. 368³.

Asopia largalis, Walk. Cat. xix. p. 938⁴.

Hab. HONDURAS (*Dyson*⁴).—VENEZUELA⁴ ; GUIANA, Cayenne^{1 2 3} ; BRAZIL³.

HERBULA.

Herbula, Guenée, Sp. gén. des Lép. viii. p. 175 (1854) ; Walker, Cat. xvii. p. 320.

A widely distributed genus, inhabiting Europe, Asia Minor, North America, &c. The single species now added lives at a high altitude in Guatemala.

1. *Herbula prochytalis*, sp. n. (Tab. LX. fig. 24.)

Primaries pale brown, darker along the outer margin, a pale yellow line crossing the wing from the costal margin near the apex to the middle of the inner margin ; secondaries yellowish-hyaline, broadly bordered with brown from the apex to the anal angle ; the fringe of both wings brown : head, antennæ, thorax, abdomen, and legs brown. Expanse 1 inch.

Hab. GUATEMALA, Totonicapam 8,500 to 10,500 feet (*Champion*).

BOREOPHILA.

Boreophila, Guenée, Sp. gén. des Lép. p. 155 (1854) ; Walker, Cat. xvii. p. 301.

A genus of small extent, most of the species being European.